

<b>Notice of Allowability</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	09/843,192	SHETTY, RAVINDRA K.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Michael B. Holmes	2121	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to November 8, 2004.
2. ☒ The allowed claim(s) is/are 1-38.
3. ☒ The drawings filed on 26 April 2001 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All    b) ☐ Some\*    c) ☐ None    of the:
    1. ☐ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  6. ☐ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
    - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
      - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
    - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

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|---|--|
| <ol style="list-style-type: none"> <li>1. <input type="checkbox"/> Notice of References Cited (PTO-892)</li> <li>2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)</li> <li>3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),<br/>Paper No./Mail Date _____</li> <li>4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit<br/>of Biological Material</li> </ol> | <ol style="list-style-type: none"> <li>5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)</li> <li>6. <input type="checkbox"/> Interview Summary (PTO-413),<br/>Paper No./Mail Date _____</li> <li>7. <input type="checkbox"/> Examiner's Amendment/Comment</li> <li>8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance</li> <li>9. <input type="checkbox"/> Other _____</li> </ol> |
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**Examiner's Detailed Office Action**

1. Applicant arguments presented November 08, 2004 are persuasive, accordingly, claims 1-38 are allowed.
2. Claims 39-43 have been canceled.

**REASONS FOR ALLOWANCE**

3. The following is an Examiner's statement for reasons for allowance:
4. The closest prior art *Shinagawa* (USPN 6,363,368), *Itoh et al.* (USPN 6,052,678), and *Dueck et al.* (USPN 6,418,398) do not teach or render obvious applicant's claimed invention. In particular, as pointed out below, the prior art lacks certain features and the combination as specified in the respective claims.
5. With regards to claim 1 *Shinagawa*, *Itoh et al.*, and *Dueck et al.* do not disclose  
“ ... *applying a search method to the set of locations, the search including a genetic algorithm, the genetic algorithm including an objective function to simultaneously minimize distance and time ...* ”
6. With regards to claim 10 *Shinagawa*, *Itoh et al.*, and *Dueck et al.* do not disclose  
“ ... *searching for pickup paths visiting each supplier location in the set of supplier locations, by applying a genetic algorithm that simultaneously minimizes distance and time ...* ”

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7. With regards to claim 24 *Shinagawa, Itoh et al.*, and *Dueck et al.* do not disclose  
“ ... *calculating a fitness for each chromosome in the current population, the fitness representing distance and time simultaneously ...* ”

8. With regards to claim 34 *Shinagawa, Itoh et al.*, and *Dueck et al.* do not disclose  
“ ... *applying a genetic algorithm to find a first route starting at the starting location, ending at the distribution center, and visiting each location in the set of locations, while minimizing distance and time ...* ”

### Correspondence Information

9. Any inquires concerning this communication or earlier communications from the examiner should be directed to **Michael B. Holmes**, who may be reached Monday through Friday, between 8:00 a.m. and 5:00 p.m. EST. or via telephone at **(571) 272-3686** or facsimile transmission **(571) 273-3686** or email [Michael.holmesb@uspto.gov](mailto:Michael.holmesb@uspto.gov).

If attempts to reach the examiner are unsuccessful the **Examiner's Supervisor**, **Anthony Knight**, may be reached at **(571) 272-3687**.

***Michael B. Holmes***

Patent Examiner

Artificial Intelligence

Art Unit 2121

United States Department of Commerce

Patent & Trademark Office

*Sunday, January 30, 2005*

*MBH*



**Anthony Knight**  
**Supervisory Patent Examiner**  
**Group 3600**